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Prosisie et al.

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(54) **READY-TO-EAT NUTRITIONALLY
BALANCED FOOD COMPOSITIONS
HAVING SUPERIOR TASTE SYSTEMS**

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(58) **Field of Search** 426/72, 73, 74, 426/656, 560, 573

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,751,569 A 8/1973 Erickson
4,005,195 A 1/1977 Jandacek
4,112,123 A 9/1978 Roberts
4,338,346 A 7/1982 Brand
4,399,163 A 8/1983 Brennan et al.
4,411,925 A 10/1983 Brennan et al.
4,423,029 A 12/1983 Rizzi
4,668,525 A 5/1987 Creswick
4,680,193 A 7/1987 Lunder et al.

4,789,664 A 12/1988 Seligson et al.
4,832,971 A 5/1989 Michnowski
4,859,475 A * 8/1989 Michnowski 426/72
4,900,566 A * 2/1990 Howard 426/72
4,935,256 A 6/1990 Tsai
5,051,270 A 9/1991 Narichika et al.
5,061,508 A 10/1991 Schur
5,132,113 A 7/1992 Luca
5,242,697 A 9/1993 Luca
5,262,190 A 11/1993 Cunningham et al.
5,490,999 A 2/1996 Villagran et al.
5,643,623 A 7/1997 Schmitz et al.
5,834,044 A 11/1998 Schmitz et al.
5,879,733 A 3/1999 Ekanayake et al.
6,207,203 B1 3/2001 Atkinson et al.
2002/0037355 A1 * 3/2002 Wong et al. 426/633

FOREIGN PATENT DOCUMENTS

EP 0 434 025 6/1991
EP 0 588 600 3/1994
GB 2178637 A 6/1985
WO WO 98/13056 4/1998
WO WO 99/08546 2/1999
WO WO 99/12030 3/1999

OTHER PUBLICATIONS

Pennington, J., *Bowes & Church's Food Values of Portions Commonly Used*, 17th edition, 1998, Lippincott, Philadelphia).

Adam Drewnowski, *Trends in Food Science & Technology*, Apr. 1992.

FDA Labeling Rules as contained in 21 CFR §101.12.

Troller, J.A. 1980, Influence of Water Activity on Microorganisms in Foods, *Food Technology*, 34:76-80.

Lemon, P. (1998) Effects of exercise on dietary protein requirements, *International Journal of Sport Nutrition*, 8:426-447.

Crouse, J.R. et al., *Arch Intern Med*, 1999, 159:2070-2076 (Pike, R.L. and Brown, M.L., 1975, *Nutrition: An Integrated Approach*, 2nd ed., Wiley, New York).

Garrison, R. and Somer, E., *The Nutrition Desk Reference*, 3rd edition, 1995, Keats Publishing, New Cannan, CT).

The Surgeon General's Report on Nutrition and Health, 1988, U.S. Department of Health and Human Services Publication No. 88-50210, Washington, DC.

(List continued on next page.)

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(57) **ABSTRACT**

The present invention relates to tasty, ready-to-eat, nutritional foods that offer an alternative to appealing but unhealthy foods. More particularly, tasty, ready-to-eat, nutritional foods that provide a balanced mix of amino acids, fat, and carbohydrates are disclosed. Processes for making, and methods of using said tasty, ready-to-eat, nutritional foods are also disclosed. The nutritious foods of the present invention are formulated and processed such that they resolve the dilemma that consumers have always been faced with—healthy eating or enjoying what they eat.

126 Claims, No Drawings